Network Adapter Cards

Allied Telesis has the industry's most comprehensive portfolio of network adapter cards (NIC) enabling clients to connect over copper or fiber media to networks running up to Gigabit speeds. Our fiber network adapters cards are widely used in government and military sectors where the inherent security characteristics of fiber-optic communication are highly valued. Whether yours is a complex, multi-platform, multi-operating system installation with high traffic volumes and management requirements or a small PC network at home - Allied Telesis has a network card to meet your needs.

Allied Telesis enhances fiber Ethernet network performance with a broad selection of adapters for desktops, laptops, workstations and servers:

- *Reliable, proven fiber Ethernet technology*
- *Scalable PCI interface provides dedicated I/O bandwidth for networking*
- *Selection of single and dual-port NICs in both fiber and copper*

Allied Telesis is the world's largest supplier of fiber adapter cards to military and government installations and to OEMs supplying the manufacturing and industrial markets. Our fiber adapters support both legacy and next-generation Ethernet, Fast Ethernet and Gigabit Ethernet connections.

Product Families

Allied Telesis is a leading provider of Plug & Play Network Adapter Cards (NICs). These reliable, cost-effective PCI solutions bring powerful Ethernet voice, video and data connectivity directly to any desktop. The cards are designed for easy installation and include software diagnostics for trouble-free maintenance, traffic and trouble-shooting LEDs and a lifetime warranty. Available in standard and low-profile models, and in various port styles for fiber or copper networks, including: RJ-45, SC, ST, MT-RJ and VF-45.

Gigabit Ethernet

Allied Telesis copper and fiber Gigabit NICs are designed to improve network availability, user bandwidth and network manageability in fiber- and copper-cabled Enterprise LANs. Gigabit NICs are ideal for transferring large data blocks to and from storage clusters, email, database and backup servers, applications such as data modeling and simulations and financial forecasting, video editing and digital imaging suites, CAD/CAM nodes and modeling and graphics stations.

Fast Ethernet

For reliable performance in Enterprise networks, Allied Telesis PCI-bus NICs make it easy to upgrade existing server and desktop connections, for fiber or copper cabling.

Copper Speed	Fiber Speed	# Channels	Bus Type	Model
10/100/1000		1	PCI	2900 series
	1000	1	PCI, PCI-X	2900 series
10/100/1000	100	1	PC Cardbus	2801FX series
10/100	10	2	PCI	AT-2451FTX
10/100		1	PCI	AT-2501TX
	100	1	PCI	AT-2701FX
10/100	100	2	PCI	AT-2701FTX
	10 & 100	2	PCI	AT-2746FX

Product Features

A strong feature set allows Allied Telesis NICs to improve network availability, user bandwidth and network manageability:

- *Tagged VLAN Support*
- *Load Balancing and Auto-Failover (LBFO)*
- *Managed Boot Agent (MBA) Support*
- *Jumbo Frames Support*
- *Advanced Power Management (ACPI)*

Tagged VLAN Support

Simple network adapters either do not support VLANs, or can only be members of a single VLAN. Most of Allied Telesis' fiber NIC offerings have advanced VLAN support which allows the card to be a member of multiple VLANs. This allows a single adapter to be installed in a server, rather than multiple cards, one for each VLAN.

Many of Allied Telesis' NICs are IEEE 802.1Q compliant and are designed to support Virtual LANs (VLANs) and tagged packets. The 'tag' in a VLAN data packet contains a VLAN identified (VID) that uniquely identifies the VLAN group to which the packet belongs. Allied Telesis network adapter cards are capable of reading the header tag in tagged packets as they arrive on the port, as well as adding tags to packets when transmitting packets. Implementing VLANs on a network ensures additional data security as only users of the same VLAN can share information. This restriction stops unauthorized users from 'snooping' the network.

Load Balancing and Auto-Failover (LBFO)

Allied Telesis provides LBFO on the majority of its NICs. This feature is primarily intended to be used with multiple network adapters in servers. Bandwidth is increased by sending the traffic over two or more adapters and the network resiliency is also improved by providing a redundant link from the server to the network should a link fail. The LBFO feature allows the bandwidth from a network server to be effectively doubled, as the two network adapters function as one virtual adapter.

Managed Boot Agent (MBA) Support

The MBA support on Allied Telesis NICs allows network administrators to perform pre-boot procedures on a system, such as installing an operating system, running a virus checker, or downloading a predefined system configuration. This feature, coupled with the Wake-on-LAN (WoL) function, allows computers to be remotely powered-on during non-work hours to perform configuration and maintenance tasks.

Pre-boot Execution Environment (PXE) support is included in most of the Allied Telesis' NICs. It allows a workstation or computer to boot from a remote server connected to the network prior to booting from the local hard drive. Therefore, any changes that need to be made to a PXE-enabled computer can be loaded onto the server, and will be implemented the next time the computer is powered on. A network administrator therefore does not have to physically visit the specific workstation and manually boot it in order to load software, configure the workstation or run diagnostics.

Jumbo Frames Support

Normal Ethernet packets are limited to a maximum size of 1548 bytes. Packets which are received that are larger than this are normally rejected by the adapter as errors. The jumbo frame support is beneficial to sending large packets, especially where the data contained in these packets either has a time critical element, or is so large that the time taken to send multiple smaller packets is too great. Jumbo frame packets are normally up to 9000 bytes long.

Advanced Power Management (ACPI)

ACPI is part of the environmental control initiative for computers. Allied Telesis' NIC network cards support ACPI which places the system in a low power state when it is not receiving or transmitting data.

Wake-on-LAN (WoL) is a feature of adapter cards that allows a computer fitted with a card to be remotely powered on. The computer receives a special data packet via the network port that will cause the computer to boot. This coupled with PXE support allows network administrators to gain complete access to all computers on their network.

2900 Series

Gigabit Ethernet PCI Adapters

Allied Telesis has three ranges of Gigabit Ethernet PCI Adapters, aimed at providing the correct price/performance/functionality for the differing segments of the market.

AT-2971T
1000T x 1 port (RJ-45)

AT-2971SX/SC
1000SX x 1 port (SC)

AT-2931SX
1000SX x 1 port (SC or LC)

Model	Description	Full/Half-height Bracket
AT-2971SX/SC	Single-port Gigabit Fiber Adapter	Both included
AT-2971T	Single-port Gigabit Copper Adapter	Both included
AT-2931SX	Single-port Gigabit Fiber Adapter	Both included
AT-2916SX	Single-port Gigabit Fiber Adapter	Both included
AT-2916T	Desktop Client Copper Adapter	Both included

Model	Dimensions	Weight
AT-2916T	12.7cm x 12.1cm	.32kg
AT-2931SX	17cm x 5cm	.10kg
AT-2971SX/SC	12.7cm x 12.1cm	.32kg
AT-2971SX/T	12.7cm x 12.1cm	.32kg

» Features: 2900 series

Features	Benefit	AT-2971x	AT-2931SX	AT-2916x
32/64-bit bus	Can be installed in 32 or 64-bit bus computers	Y	Y	32-bit only
33/66MHz operation	Can be installed in standard or high-speed computers	Y	Y	Y
33/66/100/133MHz operation	Faster speed and more bandwidth	N	Y	N
PXE 2.0 support	Enables computers to automatically download software images and configuration parameters from a central server	Y	Y	Y
Wake-on-LAN (WoL) support	Allows a computer to be remotely booted up via the network connection - useful for administrators providing computer maintenance on remote computers	Y (AT-2971T only)	N	Y
VLAN support	Removes the need for multiple cards in servers	Y	Y	Y
Port aggregation	Allows multiple cards to be installed in a server to increase throughput	Y	Y	N
Jumbo Frame support	Can transmit/receive extra large packets - useful for graphics etc	Y	Y	Y
PCI 2.2 compliant	Compatible with the latest PCI-based computers	Y	Y	Y

Products

AT-2801FX
Fast Ethernet PCMCIA Fiber Adapters

Model	Description
AT-2801FX/SC	PC Card Adapter with Duplex SC connection
AT-2801FX/ST	PC Card Adapter with ST connection

» Features: AT-2801FX	
Features	**Benefit**
32-bit PCI card	Allows maximum throughput in Cardbus (PCMCIA) laptop computers
VLAN support	Allows laptops be to be part of virtual workgroups
PCI 2.2 compliant	Compatible with the latest PCI-based computers

2700 Series
Fast Ethernet Fiber PCI Adapters

Allied Telesis have a wide range of PCI fiber adapters aimed primarily at Fiber-to-Desktop solutions. The range included fiber only, fiber and copper (for customers who have both types of cabling, but only want to install one NIC), and dual 10 and 100Mbps fibers (for customers migrating from older Ethernet networks to Fast Ethernet networks).

Model	Dimensions	Weight
AT-2801FX	12cm x 5.4cm	.04kg
AT-2701	17.5cm x 6.5cm	.12kg
AT-2746FX	17.7cm x 8.3cm	.12kg

Products

2700 Series (continued)
Fast Ethernet Fiber PCI Adapters

Model	Description	Port 1	Port 2
AT-2701FX/SC	Single-port Adapter	SC	
AT-2701FX/ST	Single-port Adapter	ST	
AT-2701FX/MT	Single-port Adapter	MT	
AT-2701FTX/SC	Dual-port Adapter	SC	10/100TX
AT-2701FTX/ST	Dual-port Adapter	ST	10/100TX
AT-2701FTX/MT	Dual-port Adapter	MT	10/100TX
AT-2746FX/SC/SC	Dual-port Adapter	SC	10FL/SC
AT-2746FX/ST/ST	Dual-port Adapter	ST	10FL/SC
AT-2746FX/ST/SC	Dual-port Adapter	SC	10FL/SC

» Features: 2700 series	
Features	**Benefit**
PXE support	Enables computers to automatically download software images and configuration parameters from a central server
Load Balancing and Auto Failover	Optimize network traffic to achieve best performance and improve network resilience
Wake-on-LAN (WoL) support	Allows a computer to be remotely booted up via the network connection - useful for administrators providing computer maintenance on remote computers
VLAN support	Removes the need for multiple cards in servers
PCI 2.2 compliant	Compatible with the latest PCI-based computers
Advanced Power Management (ACPI)	Reduces power requirement of the host computer as the card draws less power when not actively in use

Products

AT-2501TX & 2451 Series
Fast Ethernet PCI Adapters

These adapters support Copper Ethernet/Fast Ethernet connections. The 2451FTX series also supports fiber Ethernet.

Model	Description	Port 1	Port 2	Full/Half-height Bracket
AT-2501TX	10/100TX Copper Adapter	10/100TX		Both
AT-2451FTX/ST	Dual-port Fiber/Copper Adapter	10/100TX	10FL/ST	Both
AT-2451FTX/SC	Dual-port Fiber/Copper Adapter	10/100TX	10FL/SC	Both

» Features: AT-2501TX & 2451 series

Features	Benefit
PXE support	Enables computers to automatically download software images and configuration parameters from a central server (optional for AT-2501TX)
Load Balancing and Auto Failover	Optimize network traffic to achieve best performance and improve network resilience (AT-2451FTX only)
Wake-on-LAN (WoL) support	Allows a computer to be remotely booted up via the network connection - useful for administrators providing computer maintenance on remote computers
PCI 2.2 compliant	Compatible with the latest PCI-based computers
Advanced Power Management (ACPI)	Reduces power requirement of the host computer as the card draws less power when not actively in use
VLAN support	Removes need for multiple card in servers (on AT-2451FTX only)

Model	Dimensions	Weight
AT-2451FTX	18cm x 6.5cm	.12kg
AT-2501TX	13cm x 12cm	.18kg